

Notice of Allowability

Application No.

10/827,176

Examiner

Melissa J. Koval

Applicant(s)

JAYNES ET AL.

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the RCE of January 11, 2006.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date January 11, 2006
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Allowable Subject Matter

Claims 1-14 are allowed.

The reasons for allowance set forth in the Office Action of November 16, 2005 are repeated herein. The closest newly cited prior art does not teach a system employing multiple projectors and at least one camera.

The following is an examiner's statement of reasons for allowance:

The prior art neither shows nor suggests all of the method steps of claim 1, i.e.

"determining a projective relationship", "estimating a component image", "using said projective relationship", "composing each said component image", and "minimizing the difference", in combination and particularly:

"(b) estimating a component image for each said projector, comprising:

(1) using said projective relationship, for each of said component images determine a plurality of sub-sampled, regionally shifted images represented in the frequency domain; and

(2) composing each said component image using a respective plurality of said sub-sampled, regionally shifted images; and

(c) minimizing the difference between a sum of said component images and a frequency domain representation of a target image to produce a second component image for each said projector.".

The computer executable program code of claim 11 is allowable for essentially the same reasons as claim 1.

The prior art neither shows nor suggests all of the method steps of claim 7, i.e.

"determining a projective relationship", "estimating a component image", "using said projective relationship", "composing each said component image", and "performing an optimization", in combination and particularly:

(1) using said projective relationship, for each of said component images determine a plurality of sub-sampled, regionally shifted images represented in the frequency domain, and

(2) composing each said component image using a respective plurality of said sub-sampled, regionally shifted images; and

(c) performing an optimization using said component images and a frequency domain representation of a target image to produce a second component image for each said projector."

The computer executable program code of claim 13 is allowable for essentially the same reasons as claim 7. Claim 13 correctly includes the limitation "a computer readable storage medium" and the following result: "to produce a second component image for each said projector."

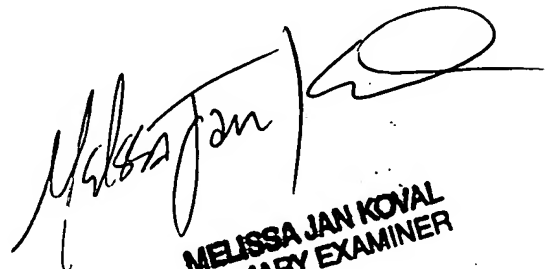
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa J. Koval whose telephone number is (571) 272-2121. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Art Unit 2851
MJK



MELISSA JAN KOVAL
PRIMARY EXAMINER